

CLAIMS

What is claimed is:

- 5 1. In an internal combustion engine, a shaft comprising at least one elastomeric damper for changing a resonant frequency of said shaft.
2. A shaft in accordance with Claim 1 wherein said resonant frequency is less than about 660 Hz.
- 10 3. A shaft in accordance with Claim 1 further including a rotary air control valve.
4. A shaft in accordance with Claim 1 disposed within said engine,
15 wherein said at least one elastomeric damper is disposed between said shaft and said engine whereby said shaft is acoustically grounded to said engine for changing said resonant frequency of said shaft.
5. A shaft in accordance with Claim 4 rotatably mountable to said engine
20 at opposite ends of said shaft.
6. A shaft in accordance with Claim 4 further comprising at least one butterfly vane disposed on said shaft.
- 25 7. A shaft in accordance with Claim 6 wherein material forming said butterfly vane includes nylon.
8. A shaft in accordance with Claim 6 wherein at least a portion of said butterfly vane includes an elastomer.

9. A shaft in accordance with Claim 4 further comprising a plurality of said at least one elastomeric damper, said plurality of dampers being spaced apart along said shaft.

5

10. A shaft in accordance with Claim 1 wherein said at least one elastomeric damper is formed from an elastomer having a durometer value of about 55.

10 11. A shaft in accordance with Claim 1 wherein said at least one elastomeric damper is formed of silicone rubber.